## **ABSTRACT OF THE DISCLOSURE**

A gas turbo pump assembly for connection to a port of a vacuum chamber and having high throughput with low vibration. The assembly comprises a turbo pump and a vibration damper. The pump has a pump body with an external surface and a center axis defining a first axial end and a second axial end of the pump. The pump also has a pump inlet port, the inlet port being coupled to the vacuum chamber port disposed at the first axial end of the pump, and an exit port disposed proximate the second axial end of the pump. The assembly vibration damper is structured to enclose a substantial portion of the pump in a nested arrangement.